

Practice: 391 - Riparian Forest Buffer**Scenario: #1 - Bare Root, All Shelters****Scenario Description:**

Establish a buffer of trees and/or shrubs into a suitably prepared site to restore riparian plant communities and associated benefits. Typically used to plant bare-root trees and/or shrubs according to state specifications. Assumes all hardwood trees have shelters/protectors. Does not include weed barrier - use Mulching (484).

Before Situation:

Typical sites include former riparian forests and habitat used for forage, cropland, speculation property, or other nonforest condition which contains undesirable amounts or types of vegetation. Active bank erosion is depositing sediment, nutrients and organics in the riparian area. Water temperature is high due to lack of shade. Habitat is not desirable for wildlife.

After Situation:

A buffer of trees and shrubs will be established along the riparian corridor which will provide stability, filtration, shade, and desirable habitat to address the above mentioned resource concerns.

Scenario Feature Measure: Area of planting**Scenario Unit: Acre****Scenario Typical Size: 1****Scenario Cost: \$2,546.94****Scenario Cost/Unit: \$2,546.94****Cost Details (by category):**

Component Name	ID	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Equipment/Installation						
Truck, Pickup	939	Equipment and power unit costs. Labor not included.	Hour	\$36.81	8	\$294.48
All terrain vehicles, ATV	965	Includes equipment, power unit and labor costs.	Hour	\$30.40	8	\$243.20
Trailer, enclosed, small	1503	Small enclosed trailer (typically less than 30' in length) pulled by a pickup to transport materials and equipment. Truck not included.	Hour	\$3.80	8	\$30.40
Hand tools, tree planting	1590	Various hand tools for digging holes and planting trees such as augers, dibble bars, planting shovel, hoe-dad. Equipment only. Labor not included.	Hour	\$11.22	24	\$269.28
Labor						
General Labor	231	Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc.	Hour	\$24.74	24	\$593.76
Supervisor or Manager	234	Labor involving supervision or management activities. Includes crew supervisors, foremen and farm/ranch managers time required for adopting new technology, etc.	Hour	\$42.58	4	\$170.32
Materials						
Tree shelter, solid tube type, 3-1/4" x 36"	1561	3-1/4" x 36" tree tube for protection from animal damage. Materials only.	Each	\$2.54	250	\$635.00
Shrub, seedling or transplant, bare root, 18"-36"	1507	Bare root hardwood trees 18-36" tall. Includes materials and shipping only.	Each	\$0.54	100	\$54.00
Tree, conifer, seedling, bare root, 1-1	1513	Bare root conifer trees, 1-1 (2 years old). Includes materials and shipping only.	Each	\$0.39	100	\$39.00
Stake, bamboo, 3/8" x 36"	1584	3/8" x 36" bamboo stakes to anchor items in place. Includes materials and shipping only.	Each	\$0.11	250	\$27.50
Tree, hardwood, seedling or transplant, bare root, 16-36"	1510	Bare root hardwood trees 18-36" tall. Includes materials and shipping only.	Each	\$0.76	250	\$190.00

Practice: 391 - Riparian Forest Buffer**Scenario: #2 - Bare Root, Half Shelters****Scenario Description:**

Establish a buffer of trees and/or shrubs into a suitably prepared site to restore riparian plant communities and associated benefits. Typically used to plant bare-root trees and/or shrubs according to state specifications. Assumes half of the hardwood trees have shelters/protectors. Does not include weed barrier - use Mulching (484).

Before Situation:

Typical sites include former riparian forests and habitat used for forage, cropland, speculation property, or other nonforest condition which contains undesirable amounts or types of vegetation. Active bank erosion is depositing sediment, nutrients and organics in the riparian area. Water temperature is high due to lack of shade. Habitat is not desirable for wildlife.

After Situation:

A buffer of trees and shrubs will be established along the riparian corridor which will provide stability, filtration, shade, and desirable habitat to address the above mentioned resource concerns.

Scenario Feature Measure: Area of planting**Scenario Unit: Acre****Scenario Typical Size: 1****Scenario Cost: \$2,229.44****Scenario Cost/Unit: \$2,229.44****Cost Details (by category):**

Component Name	ID	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Equipment/Installation						
Hand tools, tree planting	1590	Various hand tools for digging holes and planting trees such as augers, dibble bars, planting shovel, hoe-dad. Equipment only. Labor not included.	Hour	\$11.22	24	\$269.28
All terrain vehicles, ATV	965	Includes equipment, power unit and labor costs.	Hour	\$30.40	8	\$243.20
Trailer, enclosed, small	1503	Small enclosed trailer (typically less than 30' in length) pulled by a pickup to transport materials and equipment. Truck not included.	Hour	\$3.80	8	\$30.40
Truck, Pickup	939	Equipment and power unit costs. Labor not included.	Hour	\$36.81	8	\$294.48
Labor						
General Labor	231	Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc.	Hour	\$24.74	24	\$593.76
Supervisor or Manager	234	Labor involving supervision or management activities. Includes crew supervisors, foremen and farm/ranch managers time required for adopting new technology, etc.	Hour	\$42.58	4	\$170.32
Materials						
Tree, conifer, seedling, bare root, 1-1	1513	Bare root conifer trees, 1-1 (2 years old). Includes materials and shipping only.	Each	\$0.39	100	\$39.00
Tree, hardwood, seedling or transplant, bare root, 16-36"	1510	Bare root hardwood trees 18-36" tall. Includes materials and shipping only.	Each	\$0.76	250	\$190.00
Shrub, seedling or transplant, bare root, 18"-36"	1507	Bare root hardwood trees 18-36" tall. Includes materials and shipping only.	Each	\$0.54	100	\$54.00
Stake, bamboo, 3/8" x 36"	1584	3/8" x 36" bamboo stakes to anchor items in place. Includes materials and shipping only.	Each	\$0.11	250	\$27.50
Tree shelter, solid tube type, 3-1/4" x 36"	1561	3-1/4" x 36" tree tube for protection from animal damage. Materials only.	Each	\$2.54	125	\$317.50

Practice: 391 - Riparian Forest Buffer**Scenario: #3 - Bare Root, No Shelters****Scenario Description:**

Establish a buffer of trees and/or shrubs into a suitably prepared site to restore riparian plant communities and associated benefits. Typically used to plant bare-root trees and/or shrubs according to state specifications. Assumes none of the hardwood trees have shelters/protectors. Does not include weed barrier - use Mulching (484).

Before Situation:

Typical sites include former riparian forests and habitat used for forage, cropland, speculation property, or other nonforest condition which contains undesirable amounts or types of vegetation. Active bank erosion is depositing sediment, nutrients and organics in the riparian area. Water temperature is high due to lack of shade. Habitat is not desirable for wildlife.

After Situation:

A buffer of trees and shrubs will be established along the riparian corridor which will provide stability, filtration, shade, and desirable habitat to address the above mentioned resource concerns.

Scenario Feature Measure: Area of planting**Scenario Unit: Acre****Scenario Typical Size: 1****Scenario Cost: \$1,911.94****Scenario Cost/Unit: \$1,911.94****Cost Details (by category):**

Component Name	ID	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Equipment/Installation						
Truck, Pickup	939	Equipment and power unit costs. Labor not included.	Hour	\$36.81	8	\$294.48
All terrain vehicles, ATV	965	Includes equipment, power unit and labor costs.	Hour	\$30.40	8	\$243.20
Trailer, enclosed, small	1503	Small enclosed trailer (typically less than 30' in length) pulled by a pickup to transport materials and equipment. Truck not included.	Hour	\$3.80	8	\$30.40
Hand tools, tree planting	1590	Various hand tools for digging holes and planting trees such as augers, dibble bars, planting shovel, hoe-dad. Equipment only. Labor not included.	Hour	\$11.22	24	\$269.28
Labor						
Supervisor or Manager	234	Labor involving supervision or management activities. Includes crew supervisors, foremen and farm/ranch managers time required for adopting new technology, etc.	Hour	\$42.58	4	\$170.32
General Labor	231	Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc.	Hour	\$24.74	24	\$593.76
Materials						
Stake, bamboo, 3/8" x 36"	1584	3/8" x 36" bamboo stakes to anchor items in place. Includes materials and shipping only.	Each	\$0.11	250	\$27.50
Tree, conifer, seedling, bare root, 1-1	1513	Bare root conifer trees, 1-1 (2 years old). Includes materials and shipping only.	Each	\$0.39	100	\$39.00
Tree, hardwood, seedling or transplant, bare root, 16-36"	1510	Bare root hardwood trees 18-36" tall. Includes materials and shipping only.	Each	\$0.76	250	\$190.00
Shrub, seedling or transplant, bare root, 18"-36"	1507	Bare root hardwood trees 18-36" tall. Includes materials and shipping only.	Each	\$0.54	100	\$54.00

Practice: 391 - Riparian Forest Buffer**Scenario: #4 - Small Container****Scenario Description:**

Plant small containerized trees and/or shrubs to restore riparian plant communities and associated benefits. Does not include weed barrier - use Mulching (484)

Before Situation:

Typical sites include former riparian forests and habitat used for forage, cropland, speculation property, or other nonforest condition which contains undesirable amounts or types of vegetation. Active bank erosion is depositing sediment, nutrients and organics in the riparian area. Water temperature is high due to lack of shade. Habitat is not desirable for wildlife.

After Situation:

A buffer of trees and shrubs will be established along the riparian corridor which will provide stability, filtration, shade, and desirable habitat to address the above mentioned resource concerns.

Scenario Feature Measure: Area of planting**Scenario Unit: Acre****Scenario Typical Size: 1****Scenario Cost: \$6,872.44****Scenario Cost/Unit: \$6,872.44****Cost Details (by category):**

Component Name	ID	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Equipment/Installation						
All terrain vehicles, ATV	965	Includes equipment, power unit and labor costs.	Hour	\$30.40	16	\$486.40
Truck, Pickup	939	Equipment and power unit costs. Labor not included.	Hour	\$36.81	16	\$588.96
Hand tools, tree planting	1590	Various hand tools for digging holes and planting trees such as augers, dibble bars, planting shovel, hoe-dad. Equipment only. Labor not included.	Hour	\$11.22	48	\$538.56
Trailer, enclosed, small	1503	Small enclosed trailer (typically less than 30' in length) pulled by a pickup to transport materials and equipment. Truck not included.	Hour	\$3.80	16	\$60.80
Labor						
General Labor	231	Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc.	Hour	\$24.74	48	\$1,187.52
Supervisor or Manager	234	Labor involving supervision or management activities. Includes crew supervisors, foremen and farm/ranch managers time required for adopting new technology, etc.	Hour	\$42.58	16	\$681.28
Materials						
Tree, hardwood, seedling or transplant, potted, 1/2 to 1 gal.	1531	Potted hardwood tree, 1/2 to 1 gal. Includes materials and shipping only.	Each	\$4.50	236	\$1,062.00
Tree, conifer, seedling or transplant, potted, 1/2 to 1 gal.	1536	Potted conifer, 1/2 to 1 gal. Includes materials and shipping only.	Each	\$4.11	100	\$411.00
Stakes, wood, 1" x 1" x 48"	1578	1" x 1" x 48" wood stakes to fasten items in place. Includes materials only.	Each	\$1.97	236	\$464.92
Tree shelter, solid tube type, 4" x 48"	1566	4" x 48" tree tube for protection from animal damage. Materials only.	Each	\$4.00	236	\$944.00
Shrub, seedling or transplant, potted, 1/2 to 1 gal.	1526	Potted shrub, 1/2 to 1 gal. Includes materials and shipping only.	Each	\$4.47	100	\$447.00